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01 FC:1202        200.00 CR

MARTINE
PENILLA &
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**MPG**

INTELLECTUAL
PROPERTY
COUNSEL

October 4, 2006

United States Patent and Trademark Office
Post Office 1450
Alexandria, Virginia 22313-1450

<u>**VIA FACSIMILE ONLY**</u>

**Attention: Deposit Account Refunds**

Re:    U.S. Patent Application Entitled: IMAGE PROCESSING APPARATUS
       Application No. 10/099,885
       Filing Date: March 14, 2002
       Our Reference: MIPFP110
       **Deposit Account No. 50-0805**

Gentlemen:

This letter is to request a refund for funds that were deducted in error from our deposit account, as Claims in excess of twenty fees have been paid previously.

On June 12, 2002, we filed a Response to Notice to File Missing Parts in the above-identified application, and enclosed Check No. 7101 in the amount of $2,156.00 to cover the Basic Filing Fee, sixteen (16) additional Dependent Claims in Excess of twenty (20) fees, $288.00 + seven (7) additional Independent Claims in Excess of three (3) fees, $588.00 + Missing Parts Surcharge, Multiple dependent Claim and English Language Translation Fees. Enclosed is a copy of the Response to Notice to File Missing Parts, Patent Postcard and check.

On September 14, 2006, we filed an Amendment to the Claims and the Drawings. Enclosed are the Amendment Transmittal, Amendment (17 pages) and Replacement Drawing (1 page).

We also enclose a copy of a computer printout of our Deposit Account Statement, dated September 2006. The Deposit Account Statement shows a debit dated September 25, 2006 regarding the above-identified patent application. The debit is as follows: $200.00 for Fee Code 1202 (Claims in excess of twenty fee).

As the amount described above should not have been charged to our account. <u>Please refund our Deposit Account No. 50-0805 in the total amount of $200.00 as soon as possible.</u> Thank you for your assistance.

Sincerely,
MARTINE PENILLA & GENCARELLA, LLP

Debbie Triacca
Assistant Office Manager

/dt
Enclosures

710 Lakeway Drive, Suite 200 ■ Sunnyvale, California 94085
PHONE: 408-749-6900 ■ FAX: 408-749-6901 ■ www.mpiplaw.com
PAGE 2/26 * RCVD AT 10/4/2006 4:12:49 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-5/12 * DNIS:2736500 * CSID:408 749 6901 * DURATION (mm-ss):10-10

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# FACSIMILE COVER SHEET

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INTELLECTUAL PROPERTY COUNSEL

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Wednesday, October 04, 2006

| | |
|---|---|
| TOTAL PAGES INCLUDING THIS SHEET:          26 | RECEIVER TEL NO: 571-272-6500 |
| SENDER:  Debbie Triacca | RECEIVER FAX NO: 571-273-6500 |
| RECEIVER: **Refund Branch, Deposit Account** | OUR FILE REF: **MIPFP110** |
| COMPANY:  **UNITED STATES PATENT & TRADEMARK OFFICE** | PATENT APPLICATION SERIAL NO. **10/099,885** |
| | TITLE: **IMAGE PROCESSING APPARATUS** |
| | PTO DEPOSIT ACCOUNT No.  **50-0805** |

Message:

Please see attached letter with copies of:

- Response to Notice to File Missing Parts
- Patent Postcard & Check
- Amendment Transmittal
- Amendment
- Patent Postcard
- Deposit Account Statement

( ( **PATENT**

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

| | | |
|---|---|---|
| In re the application of | ) | |
| | ) | Examiner: Not Assigned |
| Kenji FUKASAWA et al. | ) | |
| | ) | Art Unit: Not Assigned |
| Application No. 10/099,885 | ) | |
| | ) | Docket No. MIPFP010 |
| Filed: March 14, 2002 | ) | |
| | ) | Date: June 12, 2002 |
| For:   IMAGE PROCESSING APPARATUS | ) | |
| | ) | |

CERTIFICATE OF MAILING
I hereby certify that this correspondence is being deposited with the
United States Postal Service as First Class Mail in an envelope
addressed to: Commissioner for Patents, Washington, DC 20231 on
June 12, 2002.

Signed: _____
Diane Schwanbeck

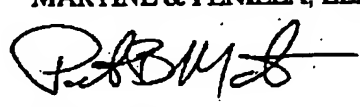## RESPONSE TO NOTICE TO FILE MISSING PARTS

Commissioner for Patents
**Attention: Box Missing Parts**
Washington, D.C. 20231

Sir:

In response to the Notice to File Missing Parts of Nonprovisional Application--Filing

Date Granted dated April 12, 2002, Applicants hereby attach the following: 1) a signed

Declaration and Power of Attorney form; 2) an English translation of the specification,

claims, and abstract; 3) twelve (12) pages of formal drawings; 4) a Certificate of Translation;

and 5) the copy of the Notice to be returned with this response.

Also attached is our Check No. 7101 for $2,156.00 in payment of the filing fee and

surcharges. The Commissioner is authorized to charge any other fees that may be due to our

Deposit Account No. 50-0805 (Order No. MIPFP010).

Respectfully submitted,
MARTINE & PENILLA, LLP

Peter B. Martine
Reg. No. 32,043

710 Lakeway Drive, Suite 170
Sunnyvale, CA 94085
Telephone: (408) 749-6900
Customer No. 25920

Attorney Docket No. MIPFP010

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

| | |
|---|---|
| *In re* application of: | Attorney Docket No. MIPFP010 |
| Kenji FUKASAWA et al. | Examiner: C. Baker |
| Application No. 10/099,885 | Group Art Unit: 2625 |
| Filed:   March 14, 2002 | Confirmation No. 5405 |
| For:   IMAGE PROCESSING APPARATUS | Date: September 14, 2006 |

CERTIFICATE OF MAILING
I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA  22313-1450 on September 14, 2006.

Signed: _Diane Schwanbeck_
Diane Schwanbeck

Commissioner for Patents
Alexandria, VA  22313-1450

Sir:

Applicants hereby transmit an Amendment in the above-identified application.

The fee has been calculated as shown below.

| | Claims Remaining After Amendment | Highest Previously Paid For | Present Extra | SMALL ENTITY RATE FEE | OR | LARGE ENTITY RATE FEE |
|---|---|---|---|---|---|---|
| TOTAL CLAIMS | 36 - | 36 | 00 | X 25 = $ | OR | X 50 = $0 |
| INDEP CLAIMS | 06 - | 06 | 00 | X100 = $ | OR | X200 = $0 |
| | | | TOTAL | $_____ | | $0 |

☐  Applicants hereby petition for a _____-month extension of time to respond to the Office Action.

☒  Applicants believe that no extension of time is required; however, if it is determined that such an extension is required, Applicants hereby petition that such an extension be granted and authorize the Commissioner to charge the required fees for an extension of time under 37 CFR 1.136 to Deposit Account No. 50-0805 (Order No. MIPFP010).

☐  Enclosed is our Check No. _____ in the amount of $_____ to cover the extension of time fees.

☒  If the required fees are missing or any additional fees are required to facilitate filing the enclosed response, please charge such fees or credit any overpayment to Deposit Account No. 50-0805 (Order No. MIPFP010).

Respectfully submitted,
MARTINE PENILLA & GENCARELLA, LLP

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<div align="right">PATENT</div>

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

| | | |
|---|---|---|
| *In re* application of: | ) | Docket No. MIPFP010 |
| | ) | |
| Kenji FUKASAWA et al. | ) | Examiner: C. Baker |
| | ) | |
| Application No. 10/099,885 | ) | Group Art Unit: 2625 |
| | ) | |
| Filed: March 14, 2002 | ) | Date: September 14, 2006 |
| | ) | |
| For: IMAGE PROCESSING APPARATUS | ) | Confirmation No. 5405 |
| | ) | |

## AMENDMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Applicants submit this paper in response to the Office Action dated June 15, 2006.

Please amend this application as follows:

The Amendments to the Specification begin on page 2.

The Amendments to the Claims made herein are reflected in the Listing of Claims, which begins on page 3 of this paper.

The Amendments to the Drawings begin on page 10 of this paper and include one (1) sheet of replacement drawings.

Applicants' Remarks begin on page 11 of this paper.

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Amendment dated September 14, 2006
Response to Office Action mailed June 15, 2006

Amendments to the Specification:

Please replace Paragraph [0038] (the paragraph that spans pages 12 and 13) with the
following rewritten paragraph:

[0038]  The internal arrangement of control circuit 50 of color printer 20 is described with
reference to FIG. 4.  As shown in the drawing, control circuit 50 comprises a CPU 51; PROM
52; RAM 53; a peripheral I/O portion (PIO) ~~54~~ 55, a timer ~~55~~ 54, a drive buffer 56 and the
like.  ~~To~~ PIO ~~54 are~~ 55 is connected to a personal computer PC, carriage motor 31, paper feed
motor 33 and an encoder 37.  Drive buffer 56 is used as a buffer for supplying dot ON/OFF
signals to print heads IH1 to IH4.  These are interconnected by means of a bus 57 to enable
exchange of data among them.  Control circuit 50 additionally comprises an oscillator 58 for
outputting a drive waveform of predetermined frequency, and a distributed output instrument
59 for distributing output from oscillator 58 to print heads IH1 to IH4 at predetermined
timing.  Control circuit 50 outputs dot data to drive buffer 56 at predetermined timing while
synchronizing with operation of paper feed motor 33 and carriage motor 31.

Please replace Paragraph [0053] (the paragraph that begins on page 17, line 12) with the
following rewritten paragraph:

[0053]  As a result, tone number becomes 1024x, and as shown in FIG. 10 color value
graduation in the converted RGB color space is finer than in FIG. 9, and where color values
have values of up to 3 places below the decimal point, all color values can be converted to
integral values in the converted image data.  If color values having tone number of up to 3
places below the decimal point are converted to integral values, it is possible to prevent
reduction of tone number, and the tone number of the original image data can be preserved
throughout subsequent image processing.  Even if a plurality of color values of converted
image data assume identical values, ~~sine~~ since the tone number is 1024x, it is possible to
easily preserve a tone number of 256 for the components of the original image data GD, and
reducing in reproductive color number can be prevented.

*This listing of claims will replace all prior versions, and listings, of claims in the application:*

<u>Listing of Claims:</u>

Claim 1 (Currently Amended):  An image processing apparatus for performing image processing of image data, said image processing apparatus comprising:

a color converter ~~converting means~~ for converting by use ~~means~~ of a matrix operation image data of a first color system in a first color coordinate system, said first color system capable of representing a first color number, to image data of a second color system in a second color coordinate system, said second color system capable of representing a second color number more numerous than the first color number, while preserving the first color number;

an image processor ~~processing means~~ for performing image processing on the converted image data in the second color system; and

a reproductive color number reducer ~~reducing means~~ for reducing the reproductive color number of image data subjected to the image processing.

Claim 2 (Currently Amended):  An image processing apparatus according to claim 1 wherein image processing performed by the image processor ~~processing means~~ includes gamma correction processing.

Claim 3 (Original):  An image processing apparatus according to claim 2 wherein the first color system is the YCC color system, and the second color system is the sRGB color system.

Claim 4 (Currently Amended):  An image processing apparatus according to claim 1 wherein the second color number of the second color system includes a color number represented by a negative value included in image data converted by the color converter ~~converting means~~ from the first color system to the second color system.

Claim 5 (Currently Amended):  An image processing apparatus according to claim 4 wherein image processing performed by the image processor ~~processing means~~ includes gamma correction processing.

**Claim 6 (Currently Amended):** An image processing apparatus according to claim 4 or 5 wherein image processing performed by the image processor ~~processing means~~ includes color conversion processing using a second matrix operation.

**Claim 7 (Currently Amended):** An image processing apparatus according to claim 4 wherein the first color system is the YCC color system, and the second color system is the wRGB color system ~~has~~ having a wider color representation range than the sRGB color system.

**Claim 8 (Currently Amended):** An image processing apparatus for performing image processing on image data, said image processing apparatus comprising:

a first image processor ~~processing means~~ for modifying a color value of the image data represented by an integral value having first effective digits into a first value having a greater place number than the place number of the first effective digits;

a tone number reduction preventer ~~preventing means~~ for preventing reduction of tone number of the image data accompanying modification of color value by the first image processor ~~processing means~~; and

a second image processor ~~processing means~~ for modifying the color values of image data having the first value from the first value to a second value reflected in image output results.

**Claim 9 (Currently Amended):** An image processing apparatus according to claim 8 wherein the tone number reduction preventer ~~preventing means~~ prevents reduction of tone number of the image data by ~~means of~~ setting the effective digits of the first value to a greater place number than the place number of the first effective digits.

**Claim 10 (Currently Amended):** An image processing apparatus according to claim 9 wherein the data size of image data prevented by the tone number reduction preventer ~~preventing means~~ from tone number reduction is larger than the data size of image data represented by integers having the first effective digits.

**Claim 11 (Currently Amended):** An image processing apparatus according to any of claims 8 to 10 wherein the first image processor ~~processing means~~ is color space converter ~~converting means~~ for converting the color space of the image data from a first color space to a second color space.

**Claim 12 (Currently Amended):** An image processing apparatus according to claim 11 wherein the color space converter ~~converting means~~ converts the color space of the image data from the YCbCr color space to the RGB color space, and modifies a color value of the image data represented by integers having the first effective digits to the first value that includes a decimal point.

**Claim 13 (Currently Amended):** An image processing apparatus for performing image processing on image data, said image processing apparatus comprising:

a first color space converter ~~converting means~~ for increasing the tone number of the image data from a first tone number to a second tone number, as well as converting the color space of image data from the YCbCr color space to the sRGB color space;

a gamma corrector ~~correcting means~~ for performing gamma correction on the color space-converted image data;

a second color space converter ~~converting means~~ for converting the color space of gamma-corrected image data from the RGB color space to a wRGB color space having a wider defined range than the sRGB color space; and

a tone number reducer ~~reducing means~~ for restoring tone number of the color space-converted image data from the second tone number to the first tone number.

**Claim 14 (Currently Amended):** An image processing apparatus according to claim 13 further comprising:

an inverse gamma corrector ~~correcting means~~ for performing inverse gamma correction on the color space-converted image data;

wherein the tone number reducer ~~reducing means~~ restores the tone number of the inverse gamma-corrected image data, rather than the color space-converted image data, from the second tone number to the first tone number.

Claim 15 (Currently Amended):  An image processing apparatus according to claim 14 further comprising:

an image corrector ~~correcting means~~ for automatically correcting quality of the inverse gamma corrected-image data;

wherein the tone number reducer ~~reducing means~~ restores the tone number of the quality-corrected image data, rather than the inverse gamma-corrected image data, from the second tone number to the first tone number.

Claim 16 (Currently Amended):  A printing apparatus for outputting image-processed image data, said printing apparatus comprising:

the image processing apparatus according to claim 1 or any of claims 8, 9, 10, or 12 ~~to 12~~, and an output ~~means~~ for outputting image data subjected to image processing by the image processing apparatus.

Claim 17 (Currently Amended):  A computer-readable medium having recorded thereon an image processing program for performing image processing on image data, wherein the image processing program realizes by means of a computer:

a function for converting by means of a matrix operation image data of a first color system in a first color coordinate system, said first color system capable of representing a first color number, to image data of a second color system in a second color coordinate system, said second color system capable of representing a second color number more numerous than the first color number, while preserving the first color number;

a function for performing image processing on the converted image data in the second color system; and

a function for reducing the reproductive color number of image data subjected to the image processing.

Claim 18 (Original):  A computer-readable medium according to claim 17 wherein the second color number of the second color system includes a color number represented by a negative value included in image data converted from the first color system to the second color system by the color converting function.

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Amendment dated September 14, 2006
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**Claim 19 (Original):** A computer-readable medium according to claim 18 wherein the function for performing image processing is a function for executing at least one process selected from gamma correction and color conversion using a second matrix operation.

**Claim 20 (Currently Amended):** A computer-readable medium according to claim 18 wherein the first color system is the YCC color system, and the second color system is the wRGB color system has having a wider color representation range than the sRGB color system.

**Claim 21 (Original):** A computer-readable medium having recorded thereon an image processing program for performing image processing on image data, wherein the image processing program realizes by means of a computer:

a first image processing function for converting a color value of the image data represented by an integral value having first effective digits into a first value having a greater place number than the place number of the first effective digits;

a function for preventing reduction of tone number of the image data accompanying modification of color value by the first image processing function; and

a second image processing function for modifying a color value of image data having the first value from the first value to a second value that is reflected in image output results.

**Claim 22 (Original):** A computer-readable medium according to claim 21 wherein the preventing of reduction of tone number is realized by setting the effective digits of the first value to a greater place number than the place number of the first effective digits.

**Claim 23 (Original):** A computer-readable medium according to claim 22 wherein the data size of image data prevented by the tone number reduction preventing means from tone number reduction is larger than the data size of image data represented by integers having the first effective digits.

**Claim 24 (Original):** A computer-readable medium according to claim 22 or 23 wherein the first image processing function is color space converting function for converting the color space of the image data from a first color space to a second color space.

**Claim 25 (Original):** A computer-readable medium according to claim 24 wherein the color space converting function converts the color space of the image data from the YCbCr color space to the RGB color space, and modifies a color value of the image data represented by integers having the first effective digits to the first value that includes a decimal point.

**Claim 26 (Original):** A computer-readable medium having recorded thereon an image processing program for performing image processing on image data, wherein the image processing program realizes by means of a computer:

a first color space converting function for increasing the tone number of the image data from a first tone number to a second tone number, as well as converting the color space of image data from the YCbCr color space to the sRGB color space;

a gamma correcting function for performing gamma correction on the color space-converted image data,;

a second color space converting function for converting the color space of gamma-corrected image data from the sRGB color space to a wRGB color space having a wider defined range than the sRGB color space; and

a tone number reducing function for restoring the tone number of the color space-converted image data from the second tone number to the first tone number.

**Claim 27 (Original):** A computer-readable medium according to claim 26 wherein the image processing program further realizes by means of a computer:

an inverse gamma correcting function for performing inverse gamma correction on the color space-converted image data;

wherein the tone number reducing function is a function for restoring the tone number of the inverse gamma-corrected image data, rather than the color space-converted image data, from the second tone number to the first tone number.

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Amendment dated September 14, 2006
Response to Office Action mailed June 15, 2006

**Claim 28 (Original):**  A computer-readable medium according to claim 27 wherein the image processing program further realizes by means of a computer:

an image correcting function for automatically correcting quality of the inverse gamma corrected-image data;

wherein the tone number reducing function restores the tone number of the quality-corrected image data, rather than the inverse gamma-corrected image data, from the second tone number to the first tone number.

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Amendment dated September 14, 2006
Response to Office Action mailed June 15, 2006

## Amendments to the Drawings:

Applicants have amended Figure 4 to change the foreign characters in item 54 to the word "TIMER." The attached sheet of replacement drawings, which has Figure 4 thereon, replaces the original sheet of drawings having Figure 4 thereon.

Attachment: One (1) sheet of replacement drawings with Figure 4 thereon.

Application No. 10/099,885
Amendment dated September 14, 2006
Response to Office Action mailed June 15, 2006

## REMARKS

Claims 1-28 are pending in this application.

Applicants have amended claims 1, 2, 4-17, and 20. In addition, Applicants have made minor changes to the specification and drawings to correct informalities. These changes do not introduce any new matter.

In response to the objection to the drawings, Applicants have amended Figure 4 to change the foreign characters in item 54 to the word "TIMER." As set forth in the "Amendments to the Drawings" section of this paper, a replacement sheet of drawings having Figure 4 thereon is attached. Accordingly, Applicants respectfully request that the objection to the drawings be withdrawn.

In response to the objection to the specification, Applicants have corrected the informalities cited by the Examiner. In addition, Applicants have changed the reference number for the peripheral I/O portion (PIO) from 54 to 55 and have changed the reference number for the timer from 55 to 54 (these changes were made to conform the reference numbers to those shown in Figure 4). Accordingly, Applicants respectfully request that the objection to the specification be withdrawn.

Applicants respectfully request reconsideration of the rejection of claims 1-6, 8-12, 16-19, and 21-25 under 35 U.S.C. § 102(e) as being anticipated by *Roberts* (U.S. Patent No. US 6,758,574 B1). As will be explained in more detail below, the *Roberts* reference does not disclose each and every feature specified in independent claims 1, 8, 17, and 21, as presented herein.

Applicants have amended independent claims 1 and 8 to remove the "means" clauses from these claims. As amended herein, claim 1 specifies a color converter, an image processor, and a reproductive color number reducer. As amended herein, claim 8 specifies a first image processor, a tone number reduction preventer, and a second image processor.

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The *Roberts* reference discloses a technique for optimizing conversions between color spaces. In particular, *Roberts* discloses a technique that involves 1) identifying the optimal color conversion functions that are tailored to the hardware that carries out the subject color conversions, and 2) combining multiple color conversion sequence lists so as to carry out desirable color conversions in the quickest color conversion sequence (passing on a device-independent color space). *Roberts*, however, does not disclose the concept of preserving the tone number and reproductive color number of image data before and after image processing conversion. In support of the rejection, the Examiner refers to the "controlled accuracy" mentioned in *Roberts* (see Office Action at page 3); however, the phrase "controlled accuracy" is not used in *Roberts* to refer to the improvement of color conversion accuracy, but rather is used to refer to restrictions imposed on color conversion accuracy by the hardware.

Regarding the subject matter specified in amended claim 1, *Roberts* provides no disclosure or suggestion of either the "color converter" or the "reproductive color number reproducer." Applicants respectfully traverse the Examiner's characterization of the *Roberts* reference relative to the subject matter specified in claim 1. In support of the rejection, the Examiner considers the RGB color space to be the same as the YCbCr color space, even though these color spaces have different color coordinate systems. Further, regarding the reproductive color number in a first color space and the reproductive color number in a second color space, the Examiner refers to two RGB color spaces belonging to the identical color coordinate system (the RGB color coordinate system), and takes the position that it is an inherent feature of the sRGB color space that one of the three components is at the minimum value or 255 and the other two values are at zero. Still further, the Examiner refers to the minimization of the size of the look-up tables (LUT) mentioned in *Roberts* and alleges that

Application No. 10/099,885
Amendment dated September 14, 2006
Response to Office Action mailed June 15, 2006

this feature constitutes the disclosure of the reduction of the reproductive color number as in the claimed subject matter.

The "color converter" specified in claim 1 is capable of converting image data of a first color system in a first color coordinate system to image data of a second color system in a second color coordinate system that is different from the first color coordinate system, while preserving a first color number represented by the first color system. The *Roberts* reference does not disclose a "color converter" for at least the reason that the technique described therein does not carry out the functionality specified in claim 1. The "reproductive color number reducer" specified in claim 1 reduces the reproductive color number of the target image data, not the size of the LUT as described in the *Roberts* reference. Thus, for at least this reason, the *Roberts* reference does not disclose a "reproductive color number reducer."

Accordingly, for at least the foregoing reasons, the *Roberts* reference does not disclose each and every feature of claim 1.

Considering next independent claim 8, the arguments set forth above regarding claim 1 are generally applicable to the subject matter specified in claim 8. In particular, in support of the rejection of claim 8, the Examiner alleges that the minimization of the size of the LUT mentioned in *Roberts* constitutes the disclosure of the "tone number reduction preventing means" specified in claim 8. The "tone number reduction preventer" specified in amended claim 8 prevents the reduction of the tone number of the image data accompanying modification of color value by the first image processing means, and does not involve reducing the size of the LUT as described in *Roberts*. Thus, *Roberts* does not disclose a "tone number reduction preventer" as specified in claim 8.

Accordingly, for at least the foregoing reasons, the *Roberts* reference does not disclose each and every feature of claim 8.

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Turning to independent claim 17, this claim defines a computer-readable medium having an image processing program for performing image processing on image data, where the image processing program implements functionality similar to that specified in independent claim 1. For the same reasons set forth above in connection with claim 1, *Roberts* does not disclose an image processing program that implements the specified "function for converting" or "a function for reducing the reproductive color number of image data subjected to the image processing."

Accordingly, for at least the foregoing reasons, the *Roberts* reference does not disclose each and every feature of claim 17.

Addressing now independent claim 21, this claim defines a computer-readable medium having an image processing program for performing image processing on image data, where the image processing program implements functionality similar to that specified in independent claim 8. For the same reasons set forth above in connection with claim 8, *Roberts* does not disclose an image processing program that implements "a function for preventing reduction of tone number of the image data accompanying modification of color value by the first image processing function."

Accordingly, for at least the foregoing reasons, the *Roberts* reference does not disclose each and every feature of claim 21.

For at least the foregoing reasons, independent claims 1, 8, 17, and 21 are patentable under 35 U.S.C. § 102(e) over *Roberts*. Claims 2-6, each of which ultimately depends from claim 1, claims 9-12, each of which ultimately depends from claim 8, claim 16, which ultimately depends from one of claims 1 and 8, claims 18 and 19, each of which ultimately depends from claim 17, and claims 22-25, each of which ultimately depends from claim 21, are likewise patentable under 35 U.S.C. § 102(e) over *Roberts* for at least the same reasons set forth above regarding the applicable independent claim.

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Applicants respectfully request reconsideration of the rejection of claims 7, 13-15, 20, and 26-28 under 35 U.S.C. § 103(a) as being unpatentable over *Roberts* in view of *Fushiki et al.* (U.S. Patent No. US 6,748,107 B1). The deficiencies of the *Roberts* reference relative to independent claim 1, from which claim 7 ultimately depends, are set forth above in connection with the anticipation rejection of claim 1. The *Fushiki et al.* reference does not cure the above-discussed deficiencies of the *Roberts* reference relative to claim 1. Accordingly, claim 7 is patentable under 35 U.S.C. § 103(a) over the combination of *Roberts* in view of *Fushiki et al.* for at least the same reasons set forth above regarding claim 1.

Independent claim 13 defines an image processing apparatus for image processing on image data. Applicants have amended claim 13 to remove the "means" clauses from this claim. As amended herein, the image processing apparatus includes "a first color space converter for increasing the tone number of the image data from a first tone number to a second tone number, as well as converting the color space of image data from the YCbCr color space to the sRGB color space." Applicants respectfully traverse the Examiner's characterization of the *Roberts* reference relative to the claimed subject matter. The technique described in the *Roberts* reference does not carry out the functionality specified for the claimed "first color space converter" (see the discussion of the *Roberts* reference set forth above in connection with the anticipation rejection). Further, the Examiner alleges that the minimization of the size of the LUT mentioned in *Roberts* constitutes the disclosure of the "tone number reducer" specified in claim 13. The "tone number reducer" specified in claim 13 restores the tone number of the color space-converted image data from the second tone number to the first tone number, and does not involve reducing the size of the LUT as described in *Roberts*. Thus, *Roberts* does not disclose a "tone number reducer" as specified in claim 13.

The *Fushiki et al.* reference is cited merely to show the use of a wRGB color space. As such, the *Fushiki et al.* reference does not cure the above-discussed deficiencies of the *Roberts* reference relative to claim 13. Accordingly, claim 13 is patentable under 35 U.S.C. § 103(a) over the combination of *Roberts* in view of *Fushiki et al.* Claims 14 and 15, each of which ultimately depends from claim 13, are likewise patentable under 35 U.S.C. § 103(a) over the combination of *Roberts* in view of *Fushiki et al.* for at least the same reasons set forth above regarding claim 13.

Considering next claim 20, this claim ultimately depends from independent claim 17. The *Fushiki et al.* reference does not cure the above-discussed deficiencies of Roberts relative to claim 17. Accordingly, claim 20 is patentable under 35 U.S.C. § 103(a) over the combination of *Roberts* in view of *Fushiki et al.* for at least the reason that this claim depends from claim 17.

Shifting to independent claim 26, this claim defines a computer-readable medium having an image processing program for performing image processing on image data, where the image processing program implements functionality similar to that specified in independent claim 13. For the same reasons set forth above in connection with claim 13, *Roberts* does not disclose an image processing program that implements either "a first color space converting function" or "a tone number reducing function" as specified in claim 26. The *Fushiki et al.* reference does not cure the deficiencies of the Roberts reference relative to claim 26. Accordingly, claim 26 is patentable under 35 U.S.C. § 103(a) over the combination of *Roberts* in view of *Fushiki et al.* Claims 27 and 28, each of which ultimately depends from claim 26, are likewise patentable under 35 U.S.C. § 103(a) over the combination of *Roberts* in view of *Fushiki et al.* for at least the same reasons set forth above regarding claim 26.

In view of the foregoing, Applicants respectfully request reconsideration and reexamination of claims 1-28, as presented herein, and submit that these claims are in

Application No. 10/099,885
Amendment dated September 14, 2006
Response to Office Action mailed June 15, 2006

condition for allowance. Accordingly, a notice of allowance is respectfully requested. In the

event a telephone conversation would expedite the prosecution of this application, the

Examiner may reach the undersigned at (408) 749-6902. If any additional fees are due in

connection with the filing of this paper, then the Commissioner is authorized to charge such

fees to Deposit Account No. 50-0805 (Order No. MIPFP010).

Respectfully submitted,
MARTINE PENILLA & GENCARELLA, L.L.P.

Peter B. Martine
Reg. No. 32,043

710 Lakeway Drive, Suite 200
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Customer Number 25920

Title: IMAGE PROCESSING APPARATUS
Inventors: Kenji FUKASAWA et al.
Appl. No. 10/099,885

<u>REPLACEMENT DRAWING</u>
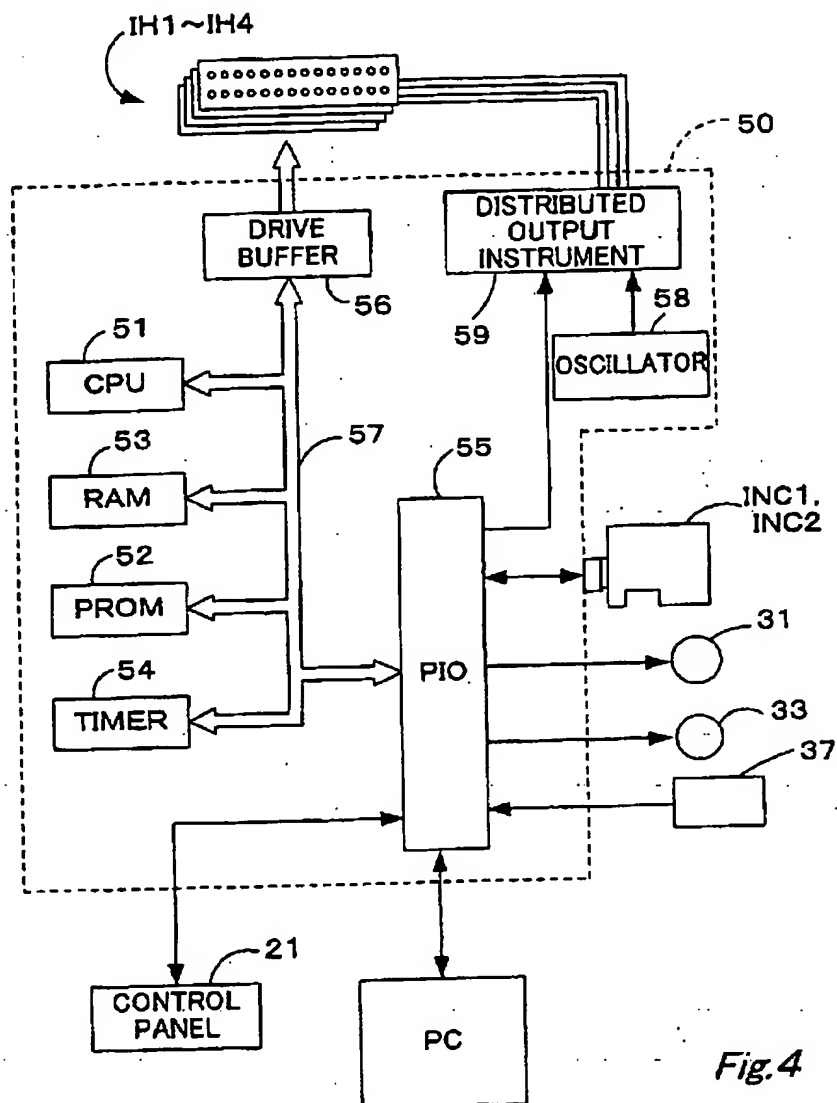


Fig.4

PATENT POSTCARD – Customer No. 25920

Docket No. MIPFP010  |  Appln. No. 10/099,885  |  Date: Sept. 14, 2006

By: PBM:ds  |  Filing Date: March 14, 2002  |  Express Mail No.:

Inventors: Kenji Fukasawa et al.

Title: IMAGE PROCESSING APPARATUS

*The following has been received in the U.S. Patent and Trademark Office on the date stamped below:*

- Amendment Transmittal
- Amendment (17 pages)
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## Deposit Account Statement

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PAGE 25/26 * RCVD AT 10/4/2006 4:12:49 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-5/12 * DNIS:2736500 * CSID:408 749 6901 * DURATION (mm-ss):10-10

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